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A protester waves a flag above Tahrir Square, in Cairo, where thousands demonstrated against President Morsi

'SECOND REVOLUTION' IN EGYPT

On 3rd July, General Abdul Fattah al-Sisi, the leader of the Egyptian army, spoke on live television. He announced that Mohammed Morsi, Egypt's president, had been removed from power. General Sisi explained that the army had taken control because of the size of recent street protests. Millions of people joined these protests on 30th June. All were demanding that Mr Morsi and senior members of his government resign.

General Sisi also said that Egypt's constitution, or the rules by which the country is governed, had been suspended. The following day the army leader declared that Adly Mansour had been appointed as Egypt's interim leader. He is one of Egypt's most senior judges. General Sisi said that Mr Mansour would be Egypt's president until new elections could be organised.

During the last two years there have been many changes and problems in

Egypt. At the beginning of 2011 Hosni Mubarak, who had been Egypt's president for 30 years, was forced to step down. This happened after tens of thousands of people took part in street demonstrations.

The demonstrators accused Mr Mubarak and his advisers of being corrupt, or dishonest. Elections, they claimed, were fixed to make sure that Mr Mubarak and his supporters always won. The protesters also insisted that the police had too many powers. They accused them of arresting people for no reason. Many people now call the street demonstrations, which ended Mr Mubarak's presidency, Egypt's revolution.

After Mr Mubarak stood down leaders of the army took over. Even though the army said elections would be held, many people were unhappy. They suspected that the army leaders wanted to stay in power. Street protests continued.

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Elections for Egypt's parliament eventually took place at the end of 2011. A group called the Muslim Brotherhood did well.

An election for a new president was finally held 12 months ago. Many said it was the first time in Egypt's 5,000-year history that its people had democratically elected their leader. Mr Morsi won. He is also a member of the Muslim Brotherhood. Of those who decided to take part in the election just over 50% voted for Mr Morsi.



General Sisi, the leader of the Egyptian army

The Muslim Brotherhood is both a religious and a political organisation. It also exists in other Arab countries. When Mr Mubarak was in charge, the Muslim Brotherhood was banned in Egypt. Many people in Egypt support the Muslim Brotherhood. Yet an even larger number dislike the organisation.

Since he has been running the country Mr Morsi has angered many people. For example, he announced that, as president, he would have extra powers. Mr Morsi also set up a group to write a new constitution. Many Egyptians complained that too many Muslim Brotherhood supporters were in this group. These people were unhappy when the new constitution was finalised. This was because it included some religious laws.

The people who complained about the new constitution want Egypt to be a secular state. This

means that religion and the way in which the country is governed should be kept separate.

Another complaint was that Mr Morsi ignored all the people who do not support the Muslim Brotherhood. What's more, during the last 12 months, Egypt's economy has been failing. There are shortages of petrol and certain types of food. Violent crimes have also been increasing.

Over the last six months Egypt has become dangerously divided. On one side are those who support the Muslim Brotherhood. On the other are people who believe Egypt should be a secular country. It seems unlikely that the two sides will ever agree.

On 30th June millions of people took part in a street protest in Cairo, the capital city. This day marked the first anniversary of Mr Morsi's election as president. The demonstrators demanded that the president resign. Hundreds of thousands crowded into Tahrir Square in the centre of Cairo. They declared that they would not leave until Mr Morsi stood down. Military helicopters flew overhead. Several displayed large Egyptian flags. Some of the demonstrators attacked the headquarters of the Muslim Brotherhood in Cairo.

General Sisi insisted that the politicians on both sides would have to find a way of ending the demonstrations. He said that if they did not do this, the army would have to take over. Several senior members of Mr Morsi's government decided to resign. Yet Mr Morsi refused to stand down. He accused the army of taking sides. The next day a group of army officers went to Mr Morsi's office and arrested him. It is not known where he is being held. The army has also arrested several other Muslim Brotherhood leaders.

After General Sisi announced that Mr Morsi had been removed from power the crowds of people in Tahrir Square celebrated. Other politicians immediately announced that they supported what the army had done. They said a plan, or 'road map' had been agreed with General Sisi. This plan, they explained, would mean that new elections would be held as soon as possible.

Some of those who took part in recent demonstrations admitted that they had voted for Mr Morsi last year. They said, at that time, they expected him to govern all Egyptians fairly.

After Mr Morsi was removed from power many supporters of the Muslim Brotherhood began to organise their own protests. These have been taking place in a different part of Cairo.

The Muslim Brotherhood is angry about what has happened. Its supporters insist that it was wrong for the army to remove a democratically elected president. Some Egyptians, who are not Muslim Brotherhood supporters, agree. They say that if Mr Morsi was unpopular people could vote for a different candidate at the next election. This was due to be held in three years time.

Many people are now calling the recent events in Egypt the country's 'second revolution'. When the army seizes control of a country it is known as a coup (pronounced 'coo'). Supporters of the Muslim Brotherhood accuse the army of organising a coup. Yet those who agree with what the army did, say this is not true. They claim the army was only doing what most Egyptians wanted. However, some are puzzled why many of those who were demonstrating against military rule 18 months ago are now celebrating the army takeover. ■

NEW 'ICE ISLAND'

A huge iceberg has broken off the Pine Island Glacier in Antarctica. A German satellite, orbiting high above the Earth, saw, or recorded, the new 'ice island' for the first time on 9th July.

The Pine Island Glacier is what's known as an ice stream. This is an area of an ice sheet that moves much faster than the surrounding ice. Most of the world's ice streams are in Antarctica. They can be as wide as 50 kilometres (31 miles) and two kilometres (1.25 miles) thick.

A thick sheet of ice covers Antarctica. Gradually its ice streams move towards the surrounding seas. The Pine Island Glacier is the largest ice stream on the western side of Antarctica. It is also one of the fastest moving.



2011 satellite picture of Pine Island Glacier, showing the newly formed crack

The end of the Pine Island Glacier floats on the sea. This part can stretch out to sea for many kilometres. The floating part of an ice stream is called an ice shelf. Every six to ten years a large area of the Pine Island Glacier ice shelf will break off and create a huge iceberg. This is known as calving. The glacier's previous two large calving events were in 2001 and 2007.

Scientists had expected the ice shelf at the end of the Pine Island Glacier to break off. This was

NEWSCAST

SURFER AND THE WHALE — A man from New Zealand had a lucky escape when he was surfing close to a beach in Australia. A 15-metre (50 foot) long whale and its calf, or baby, appeared. The southern right whale was not afraid. It seemed to want to see what the surfers were doing. Several surfers warned the man to move away from the mother whale. Yet he had never seen a whale so close before and ignored their warnings. Then the whale suddenly flipped its tail. The tail struck the man and knocked him unconscious. Several other surfers rushed to help him. The man was pulled out of the sea and taken to hospital. He later made a full recovery. Yet a hospital official said that he was lucky not to have drowned.

because a large crack, first seen in 2011, had been spreading across the surface of the ice. Some scientists are surprised that this latest calving has taken so long.

At this time of year the Sun does not rise above Antarctica. It is therefore in permanent darkness. However, even if it is dark or there are thick clouds, the German satellite's instruments are able to see the surface of the Earth.

Antarctica has several huge ice shelves around its coastline. One is called the Ross Ice Shelf. The largest iceberg ever recorded calved from this ice shelf in 2000. It had a surface area of roughly 11,000 square kilometres (4,250 square miles). This record-breaking iceberg did not break up into smaller pieces until 2006.

When icebergs float in the sea, typically only about one-ninth or

one-tenth of their mass is above the surface. So the largest part of the iceberg is underwater.

The ice island, which broke off the end of the Pine Island Glacier, has a surface area of about 720 square kilometres (278 square miles). Scientists think it could be several months before the huge new iceberg starts to float out into the open sea. ▣

GETTYSBURG ANNIVERSARY

The Battle of Gettysburg began on 1st July 1863. So, this year, 1st July, marked the 150th anniversary of the start of the battle. Gettysburg, which lasted for three days, was the largest battle of the American Civil War (1861 – 1865).

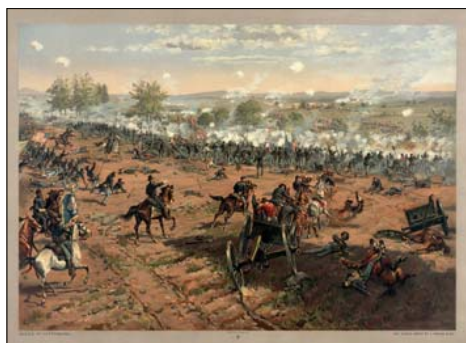
The American Civil War began after the southern states declared that they would withdraw from the 'United States'. They then formed the Confederate States of America. These states became known as the 'Confederacy' or the 'South'. The states that were not part of the Confederacy were called the 'Union' or the 'North'.

One of the main arguments between the North and South was about slavery. President Abraham Lincoln (1809 – 1865) and his supporters in the Union wanted to make slavery illegal. Yet the big landowners in the Confederacy insisted that they needed black slaves to run their large farms, or plantations. These were used to grow crops such as sugar and cotton. Eventually, fighting broke out between the northern and southern states.

The American Civil War is often described as the 'first industrial war'. It was the first time that mass-produced weapons, railways,

the telegraph and steamships were used during wartime. Factories were also taken over to produce supplies, which were needed by the two armies. It's estimated that around 750,000 soldiers died in the war. Many historians believe that it was a 'warning' of what was likely to happen when the First World War (1914 – 1918) broke out.

There were many battles during the American Civil War. The North won the Battle of Gettysburg. The fighting took place both in the town and the surrounding countryside. Even though the war did not end for another two years, many historians believe the Battle of Gettysburg was its turning point. After the battle the armies of the South retreated.



Painting of the Battle of Gettysburg by Thure de Thulstrup (retouched by Adam Cuerden)

Four months after the battle President Lincoln travelled to Gettysburg. He attended a special ceremony at the cemetery where many Union soldiers, who died in the fighting, were buried. During the ceremony the president made a short speech. This has become known as the Gettysburg Address. It is one of the most famous speeches in American history. During his speech the president talked about freedom and all humans being equal. His last words were 'that government of the people, by the people, for the people, shall not perish from the Earth'.

A few days after the end of the civil war President Lincoln was assassinated. While watching a play in a theatre he was shot by a Confederate supporter.



Statue of Abraham Lincoln

Between 1st and 3rd July a number of events were held at Gettysburg to commemorate the 150th anniversary of the battle. Several famous parts of the battle were re-enacted by thousands of people and there was a large parade. ■

PRESIDENT'S PLANE SEARCHED

Evo Morales, the president of Bolivia, asked the ambassadors of France, Spain, Portugal and Italy to meet with him on 8th July. Several days before, these countries had refused to allow Mr Morales's presidential plane to enter their airspace. The Bolivian president wanted to know why. He believes they thought an American man, called Edward Snowden, was on his plane.

Last month Mr Snowden suddenly left his job in Hawaii, which is part of the USA. He then travelled to Hong Kong, in China. When he was in Hong Kong Mr Snowden gave several secret documents to two newspaper companies. One of these companies is based in the USA and the other is in the UK.

A company that worked with America's National Security Agency (NSA) employed Mr Snowden

in Hawaii. The documents he gave to the newspapers were about a secret programme the NSA had set up. This, Mr Snowden claimed, was designed to collect large amounts of data, or information, from people's phone calls and internet use. Many people in the USA and other countries are now questioning if this type of data gathering is against the law.

People who take the risk of making secret documents public are often described as 'leakers' or 'whistleblowers'. The government of the USA is angry about what Mr Snowden did. It asked officials in Hong Kong to arrest the whistleblower and send him back to the USA. Yet before anything happened Mr Snowden managed to fly from Hong Kong to Moscow, the capital of Russia. Now only a few people know where he is. Some suspect that Russian officials are keeping him at Moscow airport.

No one expects Russia to hand him over to the USA. Vladimir Putin, the Russian president, has said that Mr Snowden should ask another country for asylum. People who ask for asylum usually do so because they fear that they will be badly treated in their own countries. So far it's believed that Mr Snowden has asked over 20 countries for asylum. Nearly all have said no. However, Bolivia and Venezuela have said that they may be willing to do so.

Mr Morales recently visited Moscow to attend a conference. He travelled in his presidential plane. On 2nd July the plane took off to return to Bolivia. It planned to land in Lisbon, the capital of Portugal, to refuel. Yet French officials contacted the plane's pilot. They said the president's plane would not be allowed to fly over France. Officials

from Portugal, Spain and Italy sent similar messages to the pilot.

Mr Morales's plane was eventually given permission to land and refuel at Vienna, the capital of Austria. Austrian officials then demanded to search the president's plane. They also wanted to check the passports of everyone on board. Even though the officials did not admit it, most people believe they were looking for Mr Snowden. However, they did not find him.



Evo Morales, president of Bolivia

Twelve hours later Mr Morales's plane was allowed to take off. It eventually arrived back in Bolivia one day later than planned. Government officials in Bolivia are sure that the USA asked the European countries to stop the president's plane from entering their airspace. This, they claim, was against international law. Mr Morales and other South American leaders have made an official complaint to the United Nations (UN). ■

NEW IVORY TEST

An American scientist has come up with a new test, or method, of finding out how old ivory is. His method is connected to atomic bomb explosions during the Cold War. It's hoped that the test will help to reduce the number of elephants and other animals that are illegally killed for their ivory tusks or horns.

Ivory can be worth a lot of money. It is popular in countries such as China, Japan and the Philippines. There it is used to make works of art, [handicrafts](#) and family seals. Most ivory comes from the tusks of elephants that are killed in Africa.

CITES (pronounced sight-ees) is an international organisation that has 178 member countries. Its name stands for the Convention on International Trade of Endangered Species. CITES's job is to make decisions about the trade, or buying and selling, of certain endangered plants and animals. In 1989 CITES put elephants on one of its endangered lists. This meant it became illegal to kill them. Ten years later CITES banned all its member countries from buying ivory from Africa.

People who unlawfully kill animals are known as poachers. CITES hoped that the ban would stop poachers killing elephants in Africa. Also, if there were a ban on the sale of ivory, the poachers would have no one to sell it to. The CITES ban has reduced the amount of poaching in Africa, but it is still a problem.

Today there are believed to be around 423,000 elephants in Africa. Each year poachers shoot about 25,000 of them. The elephants are killed for their ivory tusks. These are then unlawfully sold and smuggled into other countries. Trying to find out if people are trading illegal ivory is difficult.

The Cold War lasted from 1947 to 1991. Throughout this period the USA (together with its allies in Western Europe) and the Russian-led Soviet Union were enemies. Between 1952 and 1962 the USA and the Soviet Union tested many nuclear weapons. Later these nuclear tests were done underground.

Radiocarbon occurs naturally in the atmosphere. However, the Cold War nuclear tests greatly increased the amount of it in the air. Plants absorb radiocarbon, so it gets into the food chain. This means some radiocarbon is present in all living things. Since underground nuclear weapons tests began the amount of radiocarbon in the air has gradually decreased.



The American scientist created a special graph. It shows how much radiocarbon has been in the air from the time of the nuclear tests. It is possible to measure the amount of radiocarbon in ivory. Once this amount is known it can be compared to the graph. The year that the elephant (from which the ivory came) died can then be worked out.

Ivory that comes from elephants killed before 1989, or when they were listed as endangered, is legal. Yet ivory from elephants killed after the 1989 CITES ruling is illegal. So, by using the new ivory test, it should be possible to find out if a person who buys and sells ivory is doing so lawfully or unlawfully. ■

RUNAWAY TRAIN

Stephen Harper, the prime minister of Canada, visited the town of Lac-Mégantic, on 7th July. In the early hours of the morning on the previous day a number of railway cars, which were full of oil, came off the

train tracks in the town. Several caught fire and exploded. It took firefighters over 24 hours to control the flames.

Lac-Mégantic is in the Quebec province of Canada. The town is close to the border with the USA. The train was pulling 72 railway cars. Each contained 113,000 litres (24,860 gallons) of crude oil. The oil was being taken to an oil refinery on Canada's eastern coast. Refineries turn crude oil in to many oil-based products. These include fuels used in cars, aircraft and other vehicles, heating oils as well as chemicals for making plastics and paints.



*Railway cars used for transporting oil
(Canadian Pacific Railway)*

The train stopped in a village about 11 kilometres (seven miles) from Lac-Mégantic. It was supposed to do this. The next day there was going to be a shift change. This meant a different engineer, or driver, would take over. Yet during the night the driverless train began to roll down the hill towards Lac-Mégantic. Its speed increased as it got closer and closer to the town. In the town centre there is a bend, or curve, in the railway tracks. When the speeding railway cars reached the bend many of them came off the rails. Several then burst into flames.

Lac-Mégantic is home to about 6,000 people. Around 2,000 of them were forced to leave their homes as the fire spread through the town.

Firefighters were worried that the heat from the flames would cause more railway cars to explode. Local officials believe that at least 45 people died in the fire. Some of the oil has got into local waterways and rivers.

The police are now investigating why the railway cars rolled down the hill. When the driver stopped the train he made sure the train engine's brakes were on. However, after the train stopped there was a small fire on the engine. Firefighters were called and they put the flames out. The driver was also there. Officials say it's possible that the brakes were accidentally released at this time.

Some people in Canada are now asking if it is safe to use trains to transport crude oil. A few years ago very little oil was transported by rail in Canada. Normally, crude oil travels by ship or pipeline. Nowadays, Canada produces a lot of oil. But there have been arguments about building oil pipelines across the country. Trains are therefore being used to carry more and more of Canada's oil.



Stephen Harper, prime minister of Canada

Oil is now produced in the state of North Dakota, in the USA. Canadian trains are also used to transport this oil. This American state is next to the Canadian border. The railway cars that derailed in Lac-Mégantic were carrying oil from North Dakota.

Mr Harper described the centre of the town as looking like a 'war zone'. He said the investigation would find the cause of the accident. Once this was known, he added, it should be possible to make sure that an incident like this never happens again. ■

FOOD SECURITY BILL

The government of India has announced a plan to make food a legal right in the country. As part of its plan a new bill, or law, called the Food Security Bill, will need to be passed by the country's parliament.

India has a population of around 1.2 billion people. In recent years India's economy has been very successful. As businesses have grown they have created many better paid jobs in the country. Yet there are still many millions of poor people in India. Most of these people find it difficult to get enough food to eat. For example, it is estimated that nearly half of the children under five years of age in India are malnourished. This means that there are more hungry children in India than in any other country in the world.

Under the new law around 800 million Indians will be able to buy five kilograms (11 pounds) of food grain every month for a very low price. These food grains are wheat, rice and millet. This means that this food will be subsidised by the government. A subsidy is a payment made by the government to keep the price of something lower than its real cost.

Indian farmers grow enough food grain crops to feed all the population. Currently the government buys these food grains from farmers. The grains are then kept in large

warehouses and outside storage areas before they are sold. The government pays a set price to the farmers for their crops. This price is much higher than what the 800 million people will pay for their five kilograms (11 pounds) of food. The new law will therefore cost the government a lot of money. The amount is estimated to be £15.5 billion (US\$23 billion) every year.



Food grain warehouse store in India

Not everyone thinks the new law is a good idea. These people criticise the way that the food grains are currently stored and distributed. They say there are not enough warehouses for all the grain. Many bags of grain are stored outside under plastic sheets. If the bags get wet they quickly begin to rot. Rats and insects can also attack the bags if they are stored outside. Each year many millions of tonnes of food grain grown in India are wasted.

Another problem is the distribution of the food grain. This is organised by government officials. The critics claim that many of these officials are corrupt, or dishonest.

Others believe the government pays farmers too much money for their food grain. This, they argue, encourages them to grow more of these crops than are needed. Many farmers choose not to grow other crops, such as [pulses](#) and vegetables, as they are not subsidised.

It is estimated that around 50% of the people living in towns and cities

and 70% of those in the countryside will be able to buy the cheaper food. The new law also says that pregnant mothers, homeless people and younger children from poor families will be able to get free meals. ■

CURIOSITY BEGINS LONG JOURNEY

On 7th July the Mars Rover [Curiosity](#) travelled a distance of 40 metres (130 feet). NASA (National Aeronautics and Space Administration) officials said that this was the start of Curiosity's eight-kilometre (five mile) long journey to the base, or lower parts, of Mount Sharp.

Curiosity successfully landed on Mars on 6th August last year. It has been designed to try to find out more about what Mars was like in the distant past. Curiosity has six wheels and is about the size of a small car. It also includes specially designed equipment for testing and working out what various rocks are made from.

Curiosity landed in what's known as Gale Crater. This huge crater is 154 kilometres (96 miles) wide. A large asteroid hitting Mars about two billion years ago is believed to have created it. The crater was chosen as the landing site because of a 5.5 kilometre (3.4 mile) high mountain in the middle of it. The official name of this mountain is *Aeolis Mons*. Yet it's more commonly known as Mount Sharp.

Scientists think that over many millions of years, after the crater was formed, water and the wind gradually filled it up with [sediment](#). Over time this turned to rock. Later, wind eroded this rock so all that is now left of the filled-in crater is the mountain in the middle of it. If this is how Mount Sharp was formed, it

means the rocks at the top are the most recent and those at the bottom are about two billion years older.

Some scientists suspect that around 3.5 billion years ago there was a lot of liquid water on Mars. This is because satellite pictures of the planet's surface show many valleys that look as if rivers have formed them. Cliffs that seem to have been eroded, or worn away, by running water can also be seen. But these pictures did not prove that there used to be water on Mars.

After Curiosity arrived on Mars NASA scientists spent some time testing all its equipment. This was done to make sure that everything was working. Curiosity then studied the area close to where it landed. It has recorded rocks that look as if they were eroded, or worn away, by flowing water. It has also found mudstones, which were probably formed at the bottom of a lake. These discoveries show that, in the distant past, there must have been a lot of liquid water on Mars.



Computer-generated image of Curiosity on Mars

Of all the other planets in our Solar System Mars is the most Earth-like. As there was liquid water on the planet, there may also have been some forms of life, such as small microbes. What's more if life developed on Mars as well as the Earth then there could be life throughout the whole Universe.

It may take Curiosity as long as 12 months to get to Mount Sharp.

When it arrives it will start to study the different layers of the mountain. These, NASA scientists say, should provide information about how Mars has changed over billions of years. ▣

POPE'S ISLAND VISIT

Pope Francis travelled by plane to the small Mediterranean island of Lampedusa on 8th July. In recent years Lampedusa has been in the news. This is because of the tens of thousands of illegal migrants from Africa who have managed to get to the island.

Pope Francis is the head of the Roman Catholic Church. The Catholic Church's headquarters are known as the Vatican. Even though Vatican City is in Rome, the capital of Italy, it is a separate city-state. Vatican City is the smallest independent state, in both size and population, in the world. The pope is also known as the Bishop of Rome.



Pope Francis (presidencia.gov.ar)

Pope Francis, who is from Argentina, was selected to be head of the Catholic Church four months ago. This was after its previous leader, Pope Benedict the Sixteenth, announced that he had decided to retire, or stand down. Pope Francis's

visit to Lampedusa was his first trip outside the Italian capital city since he became Bishop of Rome.



Lampedusa is one of a group of small islands, called the Pelagie Islands. Although they are only about 113 kilometres (70 miles) from Tunisia, the islands belong to Italy. About 6,000 people live on Lampedusa. Most make a living from fishing. As Lampedusa is part of Italy it is the Italian government's responsibility to look after any migrants that land on the island.

Since the beginning of 2011 there have been many political problems in North African countries. These include Tunisia, Libya and Egypt. Because of these problems thousands of migrants try to get to Lampedusa every year. They do this in the hope of improving their lives and finding a good job. Italy is one of the European Union's 28 member countries. This means that if the migrants manage to reach Lampedusa they may eventually be allowed to live in an EU country.

However, to get to Lampedusa the migrants have to travel by boat. Most of the boats they use are very old or badly made. Some capsize. When this happens many of those on board drown. Since the beginning of this year about 4,000 migrants have managed to reach the island. A few hours after the pope's plane landed a boat carrying 166 people arrived. Most were reported to be from Eritrea.

The pope went out on an Italian coast guard boat. Many local boats followed him. The Catholic leader said some prayers for those who had died trying to get to Lampedusa. As part of the small ceremony Pope Francis threw a wreath made of yellow and white flowers into the sea.

The pope was driven around the island in an open topped car. He stopped and spoke with many of the migrants. Later he led a Mass, or religious service. This was held outside in a place where many of the migrant's boats have been left. He even used one of the boats as an altar. Pope Francis thanked the people who live on the island for helping the migrants. He said that by assisting people who were looking for a better life the people of Lampedusa sent a message to the rest of the world. ▣

CRUSADERS PARASITE STUDY

Two researchers from the UK may have discovered why so many crusaders died from disease around 800 years ago. The researchers did this by studying human excrement from an ancient latrine, or toilet. The latrine was in a ruined castle on the island of Cyprus.

'The crusades' is the name given to a number of religious military expeditions in the 11th, 12th and 13th centuries. These were organised by leaders of European countries. The city of Jerusalem, in what is known as the Holy Land, is important to the followers of three different religions – Islam, Judaism and Christianity.

At the time of the first crusade Muslim leaders controlled the Holy Land and the city of Jerusalem. The leaders of wealthy land owning

families in Europe, who followed the Christian faith, decided to work together to capture the Holy Land. Christian church leaders encouraged them to do this. They said that any man who took part in a crusade would go to heaven when he died.

There were several crusades to the Holy Land. The first one managed to capture Jerusalem in 1099. During the fighting the Jews living in the city fought alongside the Muslims against the Christian invaders. After taking Jerusalem the crusade's leaders set up four 'states'. One was called the Kingdom of Jerusalem.

However, in 1187, under its famous leader, Saladin, a Muslim army recaptured the Holy City. Another crusade was organised. One of its leaders was the king of England, Richard the First. Even though King Richard led his army to several

victories, he failed to recapture Jerusalem. Later crusades also failed to reach the Holy Land.



Saranda Kolones, in Cyprus

During the crusades many terrible things happened. For example, both sides often killed those who had been taken prisoner. Many men who joined the crusader armies died from disease.

During the crusade in which Richard the First took part the island of Cyprus was captured. The crusaders built a castle on the island in 1191. About 30 years later an earthquake destroyed it. The castle was never rebuilt. Today, the ruins of the castle are called Saranda Kolones (which means forty pillars).

The researchers collected samples from one of the castle's toilets. When they studied the samples they found roundworm and whipworm eggs. These small creatures are parasites that live inside human intestines. The females of both can produce many thousands of tiny eggs every day. These worms will hatch inside other people if they eat food that is infected with their eggs.

Today there are medicines that can treat these types of parasites. Yet this was not possible hundreds of years ago. The researchers believe these worm infections together with the poor food, which the crusaders ate, could be fatal. Their study may therefore help to explain why so many crusaders died of disease.

The researchers say their discovery may be useful in another way. DNA can be taken from the eggs of these ancient parasites. This could be compared with DNA from modern day roundworms and whipworms. This comparison will show how these tiny creatures have evolved, or changed, over this period of time. This information will be useful to scientists who produce drugs and medicines that cure these types of infections. ■

NIGHT PARROT FOUND

A night parrot has been photographed for the first time. John Young, an Australian naturalist, took the pictures. On 3rd July Mr Young displayed his photographs, and showed a short video film, of the mysterious bird at one of Australia's museums. The event was attended by a specially invited group of scientists.

Night parrots, which only live in Australia, were first 'discovered', or recorded 150 years ago. Their scientific name is *Pezoporus occidentalis*.

It is just over 100 years since the last night parrot was caught alive. Not much is known about the nocturnal birds except that they spend much of their time on the ground. They have yellow-green feathers with dark brown and black patches. The parrots are believed to be nomadic. This means the birds are always moving to different areas and do not stay in one place for very long.

As the night parrot has managed to avoid being seen for so long it is sometimes described as one of the world's most mysterious birds. Some ornithologists – scientists who study birds – believe that there

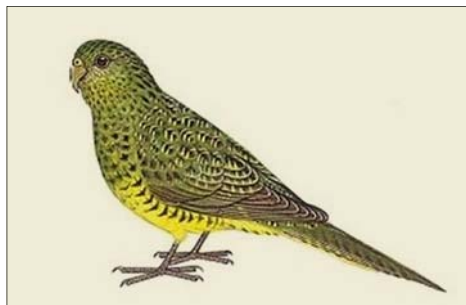
NEWSCAST

MONITOR ROUND UP — People living in 20 villages in an area of Thailand were puzzled. Many of the fish from their fish farms were disappearing. They discovered that monitor lizards were to blame. These are large meat-eating, or carnivorous, reptiles. The lizards, which can grow to over 1.5 metres (five feet) in length, are good swimmers. They can also be aggressive. In most countries, including Thailand, monitor lizards are a protected species. The villagers made a complaint to local officials. The officials sent a team to try and catch the fish-eating reptiles. To everyone's surprise the team captured 641 lizards. All of them were taken to a wildlife centre in a different part of the country and then set free.



are only between 50 and 250 night parrots in the whole of Australia.

In 1989 the owner of an Australia scientific magazine offered a [reward](#). He said that he would pay A\$25,000 (£15,200) to the first person who found a night parrot 'dead or alive'. The following year a group of scientist discovered a dead night parrot by the side of a road in northern Australia. It seemed to have been killed by a car. Sixteen years later another dead bird, which was missing its head, was found. This parrot was about 200 kilometres (124 miles) from where the other dead bird had been picked up in 1990.



Drawing of a night parrot

In 1979 an ornithologist claimed to have seen a flock, or group, of night parrots, but no pictures were taken. The only other recent sighting was in 2005. Then two biologists said they had seen three night parrots. Yet they too were unable to photograph them. Both of these sightings were in northern Australia.

Mr Young says he has spent 15 years looking for night parrots. During this time he claims to have travelled thousands of kilometres in search of the birds. He said he managed to make a recording of the sounds that they make in 2008. He then used these recordings to try to get one of the parrots to come close to him. Eventually, after many years of trying, one appeared. Surprisingly, the bird did not seem to be scared of the light from his torch. Mr

Young says the parrot stayed close to him for about 30 minutes. He was therefore able to take a number of photographs and a short video.

Expert ornithologists are now studying his photographs. Mr Young says he plans to keep the place where he took the pictures a secret. This, he explains, is to stop crowds of people going to look for the rare birds in the same area. ■

STEINWAY SOLD

On 1st July the Steinway Musical Instruments Company announced that it had agreed to be acquired, or bought, by another firm called Kohlberg & Company. Recently the Steinway Company, which is based in the USA, had admitted that it was looking for a buyer. This was because in recent years it had found it difficult to make a [profit](#).

Nowadays Steinway makes many different types of musical instruments. These include saxophones, trumpets, French horns and clarinets. However, the company is most famous for its pianos. Steinway pianos cost more than US\$100,000 (£66,200). Each one takes more than one year to make. Nearly all the world's best concert pianists use Steinway pianos.

The Steinway Company was set up in New York City, in the USA, in 1853. Its founder was Heinrich Engelhard Steinweg. He was a German who moved to America in 1859 with his wife and eight of their nine children. In Germany Steinweg had a piano making company. When he and his family travelled to America his eldest son stayed behind to run the German piano making business.

Steinweg set up a small workshop in New York. The first piano

he made in America was given the number 483. This was because he had already made 482 pianos in Germany. The piano with the number 483 is now in the Metropolitan Museum of Art, in New York. This is the largest museum in the USA.

By the 1860's Steinweg had opened a large factory. This had 350 workers and made hundreds of pianos each year. A few years later Steinweg decided to change his name to Steinway. (In German 'stein' means stone and 'weg' is a way or path.)

Two of Steinway's son's died in the USA. He therefore asked his eldest son to sell the piano business in Germany and move to America. There he would become the company's new boss. The eldest son agreed to do this. He and another son, called William, set up an even bigger factory in New York. Eventually, it was decided that the eldest son would return to Germany and open a new Steinway company in the city of Hamburg.



The inside of a Steinway grand piano

By 1900 Steinway factories were producing more than 3,500 pianos a year. In 1903 the company made its 100,000th piano. This one was given to the White House as a gift. The White House, which is in Washington DC, the capital of the USA, is the home of the American president. In 1938 this piano was replaced by the 300,000th Steinway piano.

By the early 1970's Steinway had financial problems. The family decided to sell the firm to a large television and radio company called CBS. Yet CBS's plans for Steinway did not work out. Several years later it sold the piano maker to a group of investors who then set up the Steinway Musical Instruments Company.

Henry Z Steinway (1915 – 2008) was the last family member to work for the company. He was the founder's great-grandson. Henry continued to spend time at the company until he died aged 93.

Kohlberg & Company, the new owners of the Steinway Company, is what's known as a private equity firm. These companies raise large amounts of money, which is then used to buy other businesses. They then try to improve the firms they buy to increase their value. If they succeed then the businesses are often sold to others for a much higher price. ■

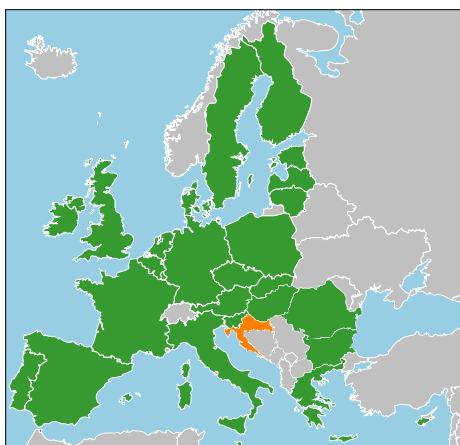
CROATIA JOINS EU

Thousands of people gathered in the centre of Zagreb, the capital city of Croatia, a few hours before midnight, on 30th June. Just after 12 o'clock a large firework display began. The event was organised to celebrate Croatia officially becoming the 28th member of the European Union (EU) on 1st July.

The EU first began in 1951 when six countries – Belgium, France, Italy, Luxembourg, the Netherlands, and the then West Germany, agreed to make it easier to trade with each other. At first the organisation they formed was called the European Coal and Steel Community.

In 1957 the six countries signed the Treaty of Rome. The name of

the organisation was changed to the European Economic Community (EEC). Each country agreed to become a 'common market'. This meant people and companies within each member country could easily work in any of the others. The EEC's headquarters were set up in Brussels, the capital of Belgium.



- ▶ 27 EU member countries
- ▶ 28th EU member, Croatia

Other European countries soon applied to join. In 1993 the organisation's name was changed to the European Union. The last two countries to become EU members were Bulgaria and Romania in 2007. Members have to follow many of the rules that are made by the European Commission in Brussels. This is the organisation that runs the day-to-day management of the EU.

Around 20 years ago the EU decided to set up a new currency called the euro. The first euro notes and coins were introduced in 2002. So far, of the 27 members, 17 countries have decided to exchange their old currencies for the euro. Together these 17 countries are known as the eurozone.

Countries that want to become members of the EU have to apply. Croatia first applied to join over ten years ago. A country's application is only accepted if it follows certain rules. For example, the country

must hold fully democratic elections and it has to have a proper legal system. Large organised criminal gangs must not be allowed to operate. Politics and business also have to be free of corruption, or dishonesty.

Croatia became an independent country 22 years ago. It was formerly part of Yugoslavia. In 1991 Yugoslavia began to break up. The split was not peaceful and wars broke out between some of the regions. Today what used to be Yugoslavia is now seven different countries – Slovenia, Croatia, Bosnia, Serbia, Montenegro, Macedonia, and Kosovo. Croatia is the second country, which was formerly part of Yugoslavia, to join the EU. The first was Slovenia. It became a member in 2004.

Croatia organised a referendum, or vote in which all adults can take part, on EU membership. It was held 18 months ago. The majority of people who voted wanted their country to join the EU.

Many people who are supporters of the EU, and what it does, want member countries to become 'ever closer together'. This is known as federalism. Some even predict that one day the EU will become one large country or 'the United States of Europe'.



Flags of the European Union and Croatia

Most people believe being a member of the EU is a good thing. Yet a growing number of people believe it has become too big and undemocratic. They dislike federalism

and complain that the EU is taking away many of their own elected governments' powers. Some even think their countries should leave the EU. Others say it should go back to being just a trading organisation, as the old EEC used to be.

José Manuel Barroso, the president of the European Commission, was in Zagreb for the celebrations. He spoke to the large crowd. Using the Croatian language he shouted 'welcome to the European Union!'. Croatia's president Ivo Josipovic said it was 'a great and joyful day for our homeland'. ■

HUGE ALGAE BLOOM

A huge area, or bloom, of green algae has appeared around a part of the north east coast of China. The thick green mass has almost completely covered the sea and beaches near the city of Qingdao.



Algae bloom at Qingdao

Reports in China said that the algae bloom has spread over 19,425 square kilometres (7,500 square miles) of sea. This means it is one of the largest algae blooms ever recorded. In some places the algae is 40 centimetres (16 inches) deep. This is the sixth summer in a row that there have been large algae blooms at this time of the year in this part of China. However, the last time the bloom was this size was in 2008.

The scientific name of the algae is *Enteromorpha prolifera*. Many Chinese people call it 'sea lettuce'. Local officials say that it first began to appear about four weeks ago. At this time of year the area around Qingdao is popular with summer visitors. Many come to swim in the sea. Local workers have been using boats, bulldozers and trucks to remove thousands of tonnes of the bright green algae from around the coast.

Scientists say that huge algae blooms are usually caused by fertilizers, pollution from factories and human waste. These can get into rivers that then flow into the sea. Man-made fertilizers, for example, can be washed from fields into streams and rivers by heavy rain. These contain nutrients called phosphates. When the sea gets warmer in the summer months these extra nutrients can make the algae grow very quickly.

Some scientists in China think that the algae blooms around Qingdao have something to do with seaweed farms. These farms are near the coast farther south. They use floating rafts to grow a type of edible seaweed, which is used in many Chinese and Japanese dishes. The seaweed farms attract the algae. Each spring the owners of the farms clean the algae off the seaweed. Sea currents then carry it north towards the Yellow Sea. There, because of the extra nutrients in the water and the warm summer sea temperatures, the algae suddenly start to grow very quickly. Eventually, it starts to wash up on the coast.

One problem with these fast-growing blooms is that they reduce the amount of oxygen in the water. This means the blooms can kill fish, marine creatures and plants in the sea, which all need oxygen to survive. In the water the algae is

not harmful to humans. Yet if left on beaches the algae will die and dry out. It then decomposes, or rots. When the algae does this it can produce a gas called hydrogen sulphide. This gas, which smells like rotten eggs, can be dangerous to breathe.

The huge algae bloom has not put everyone off swimming in the sea near Qingdao. Some newspapers in China have included pictures of people swimming through it. Others show people covering their friends in the thick green mass, as if it were sand. ■

NEW BANK OF ENGLAND GOVERNOR

Mark Carney started his new job as the governor of the Bank of England on 1st July. The Bank was set up in 1694. Mr Carney is from Canada. He is the first foreigner to be appointed as the Bank of England's governor in its 319-year history.



Bank of England

The Bank of England is in London, the capital of the UK. It is what's known as a central bank. Independent countries usually have a central bank. These banks work with the country's government. They control the amount of money in use, and set the interest rate. This is the minimum amount of interest companies or people may need to pay when they borrow money from banks. When a country's economy is

doing well, its central bank usually increases the interest rate. When it is doing badly, it does the opposite.



Governor of the Bank of England, Mark Carney

Central banks also keep a check on all the country's other banks in which people keep their money. They do this by regulating the banks or making sure that they follow agreed banking rules. Central banks arrange for replacement banknotes to be printed and new

coins made, or minted. Also, in times of economic difficulties, central banks may decide to increase the money supply in a country. One way of doing this is by printing extra banknotes.

The Bank of England is the central bank of the United Kingdom (UK). The UK is made up of four different parts, or regions – England, Scotland, Wales and Northern Ireland.

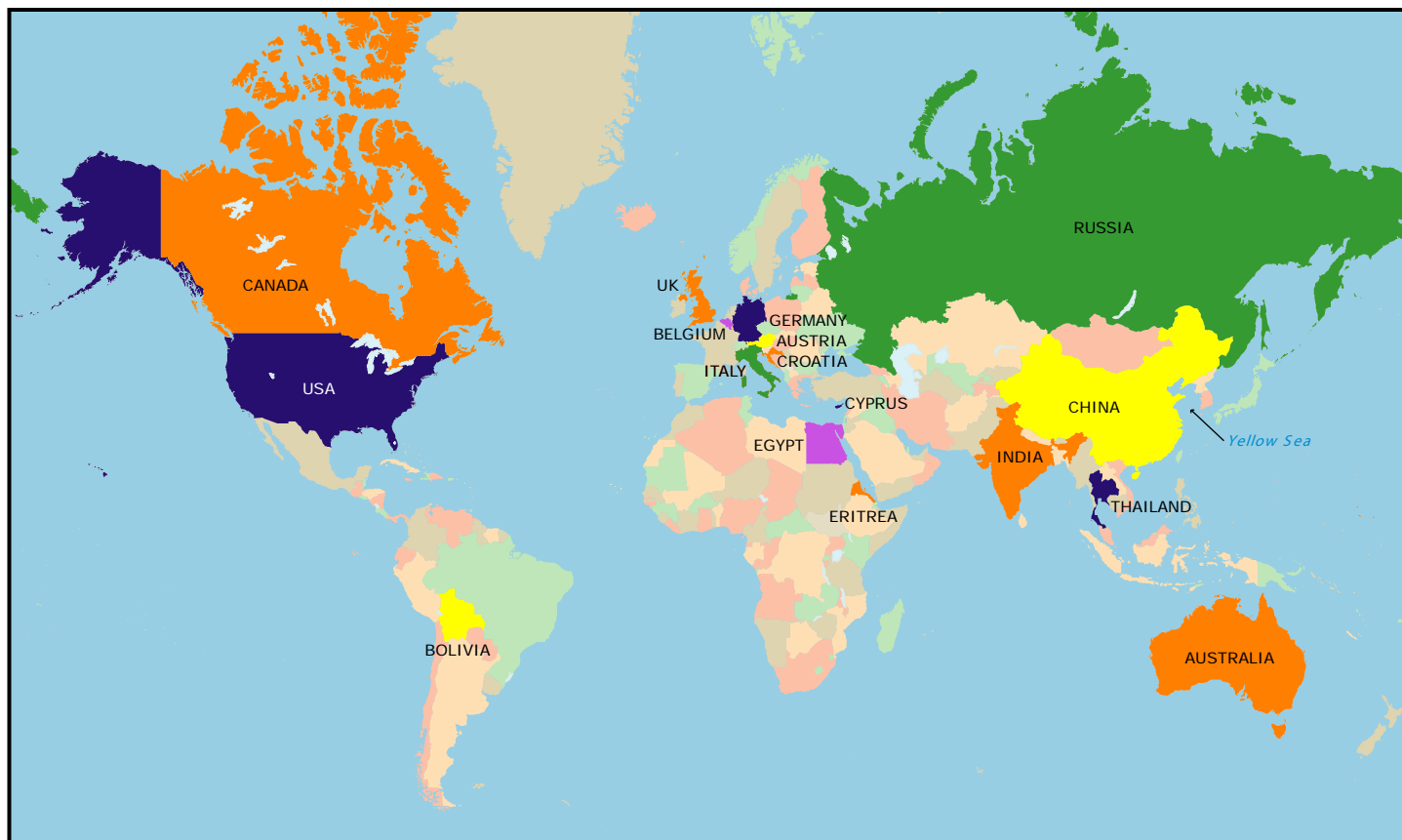
Japan's central bank is called the Bank of Japan. The USA's central bank is called the Federal Reserve. Often called the 'Fed' it is based in Washington DC, America's capital city. The title of the boss of the Federal Reserve is 'Chairman'. The Fed's current chairman is Ben Bernanke.

Of the European Union's 28 member countries, 17 of them use the euro as their currency. These 17 countries are often called the

'eurozone'. These countries still have central banks. Yet, when they began to use the euro, many of their powers were transferred to the European Central Bank (ECB). This bank was set up when the euro currency was first introduced over ten years ago. The ECB is based in Frankfurt, one of the largest cities in Germany. Nowadays it is the ECB that sets the interest rate for the whole of the eurozone.

Mark Carney used to be the governor of the Bank of Canada, the Canadian central bank. Before this he worked for Goldman Sachs. This international American company is one of the most successful investment banks in the world.

The UK government appoints the governor of the Bank of England. Usually these people have worked for the bank for many years before being chosen to be its boss. Mr



Carney took over from Sir Mervyn King who has been the governor for the last eight years. Mr King began working at the bank in 1991.

The Bank of England is on Threadneedle Street in London. People often refer it by its nickname 'the old lady of Threadneedle Street'. This nickname was first used over 200 years ago. ■

SOLAR BARGE EXCAVATION

A team of archaeologists from Egypt and Japan have started to recover pieces of wood from an ancient boat. The large boat was buried around 4,500 years ago in a specially built pit, close to the Great Pyramid of Giza, in Egypt.

It's thought that as many as five wooden boats were buried close to the Great Pyramid. Three of them were found by grave robbers hundreds of years ago. Nothing now remains of these boats. The other two were discovered in 1954. The boats were buried in large pits that were carved out of the underground rock.

When the two boats were found a decision was made to [excavate](#) one of them. Before they were buried the boats had been taken to pieces. It took over 20 years to recover all the bits of wood from the first boat (there were over 1,200 of them) and put them back together. As no air or water had got into the pit these pieces of wood were very well preserved. Today this boat can be seen inside a specially built museum, which is close to where it was found.

The boat in the museum is called the Khufu ship. It is around 44 metres (144 feet) long and six metres (20 feet) wide. The boat is one of the oldest and best preserved in the world. Most archaeologists believe

that the Great Pyramid was built as a tomb for Khufu. He was an ancient Egyptian pharaoh, or ruler. Khufu is also known as King Cheops.

Ancient Egyptians believed that their pharaohs travelled to the stars after they died. It's thought that boats were buried so pharaohs could travel from the Earth to the heavens in the afterlife. This explains why these ancient buried boats are often called 'solar barges'.

The Khufu ship shows signs that it was used in water. Experts think the ship may even have been used to transport Khufu's body down the River Nile to the site of the Great Pyramid.

In 1987 a hole was drilled through the slabs of rock that covered the pit in which the second boat was buried. A small camera was lowered into the pit. The air was also measured. Afterwards the hole was sealed up again.



Khufu's solar barge

However, in recent years it has been discovered that water and insects were getting into part of the pit. Experts worried that these were

affecting the pieces of wood and causing them to rot. Several years ago a decision was made to excavate the second boat. The archaeological team has now managed to get rid of all the insects. Tests have also been done on the fungi that have been growing on some of the pieces of wood. These tests were necessary to work out how the wood should be treated after it has been recovered.



Great Pyramid of Giza

Over the next two years all the pieces of wood will be excavated. A digital camera will record each of them. This will help the team to work out how all the bits fit together. When it is complete Khufu's second ship will be placed alongside the first one. The two ships will be displayed in a new much larger museum, which is being built close to the Giza [plateau](#). ■

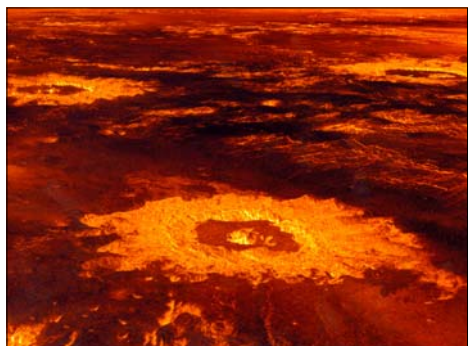
PLANET EARTH'S FUTURE

Scientists in the UK have made a computer model that shows how changes to the Sun are likely to affect the Earth. The Earth is believed to be roughly 4.5 billion years old. The computer model predicts that in around 2.8 billion years time all life on the planet will have ceased to exist.

Our Sun is a star. Stars have a life cycle that can last for billions of years. Inside stars a process called nuclear fusion takes place. This

turns hydrogen atoms into helium atoms and produces light and heat. Eventually, after many millions or billions of years, the hydrogen supply in the core, or centre, of a star begins to run out. The core then gets smaller, or contracts. Yet the outer part of the star expands, cools and glows red. At this stage of their life cycle stars are known as 'red giants'.

The computer module predicts that our Sun will begin to expand in about 1.1 billion years time. This will cause the Earth to heat up. As it does so the water in the oceans will start to evaporate. This evaporation together with chemical reactions with rainwater will remove more and more carbon dioxide from the atmosphere. Water vapour is a type of greenhouse gas. Therefore, as the amount of water vapour in the atmosphere increases the Earth will get hotter and hotter.



Computer generated picture of the surface of the Planet Venus (NASA)

Plants need carbon dioxide to survive. So if there is not enough of it in the air all the plants will begin to disappear. Herbivores, or animals that eat plants, will die off. The carnivores, or meat-eating animals, that prey on the herbivores will therefore also cease to exist. At this stage the only life remaining on the planet will be tiny microbes.

Furthermore, in 2.1 billion years time all the oceans would have completely disappeared. Then, most

microbes will not be able to exist. The only ones able to survive, the scientists say, will be a few extremophiles. These are certain types of very tiny organisms or bacteria. Extremophiles are able to live in extreme conditions. Examples are places where it is very hot and there is no light or oxygen.

The scientists believe extremophiles might be able to exist high in the mountains, deep underground or in caves. In these places small amounts of liquid water might remain and it should be cooler. Yet in about 2.8 billion years time even the extremophiles will not be able to survive. After another 700,000, or roughly 3.5 billion years from now, the Earth will probably be similar to the Planet Venus. The surface of this planet is like an inferno.

The scientists say their work is not just to predict what will happen to the Earth. They believe it may also help in the search for life on other planets. It's possible, the scientists explain, that life first started on some planets billions of years before it did on the Earth. So, for example, if certain types of extremophiles are ever found on another planet it could mean that, billions of years before, higher life forms might have existed there. ■

KING OF THE BELGIANS ABDICATES

On 3rd July a short, pre-recorded speech, made by Albert the Second, was shown on television and broadcast on the radio in Belgium. In the speech Belgium's king, who is 79 years old, announced that he had decided to abdicate, or give up the throne.

In Belgium the king is officially known as King of the Belgians.

King Albert's abdication means that his son and eldest child, Prince Philippe, will become the country's new monarch. King Albert explained that he had decided to give up the throne because of his age and health. He declared that Philippe was ready and able to take over.



Albert the Second, King of the Belgians

Albert has been Belgium's king for 20 years. He became the country's monarch after his elder brother King Baudouin died in 1993. Albert is Belgium's sixth king. This is the second time that one of the country's kings has decided to abdicate. Albert's father, Leopold the Third, was accused of not protesting about the German occupation of Belgium during the Second World War (1939 – 1945). He was eventually forced to give up the throne after there were political problems in Belgium in the early 1950s.

Belgium is one of the smallest countries in Europe. It became a separate nation in 1830. Since then Belgium has been a constitutional monarchy. This means the country's monarch is the official head of state. Yet the head of the royal family has few real powers. An elected government led by the prime minister runs the country.

Politics in Belgium is complicated because the country is split into different regions – Flanders and Wallonia. People in these two regions speak different languages. Around 60% of Belgium's population lives in

Flanders, where a version of Dutch, called Flemish, is spoken. The other 40% – living in Wallonia and in Brussels, the capital city – speak French. Each region has its own newspapers, radio and television stations.

Flanders is the wealthier of the two regions. Many Flemish politicians want Flanders to have more of its own powers. The Walloon politicians disagree. They worry that their region will be at a disadvantage. Some people say that if Belgium didn't have a king the two regions would have split apart a long time ago. Of the two regions the royal family is more popular in Wallonia.

In 2011 there was a political **crisis** in Belgium. After an election none of the main political parties could agree who should run the country. Belgium did not have a proper government for 541 days. Eventually, King Albert managed to persuade the political leaders to agree on who would be the prime minister.

NewsCAST

DIRTY DAY — Each year a town called Westland, in the USA, holds its annual 'Mud Day'. This year's Mud Day was on 9th July. First a special area is set up. This is then filled with 200 tonnes of earth and 113,000 litres (24,860 gallons) of water. There is a music concert and all the children under 12 years old living in the town are invited to come and get 'very dirty'. Several 'muddy' events are held. These include running races and volleyball matches. There is also a competition to choose the Mud King and Queen. When the day is over the children line up. A team of the town's firefighters then sprays them with water to wash off all the mud.

King Albert is the second European monarch to abdicate this year. At the end of April Queen Beatrix of the Netherlands handed over to her eldest son. He is now King Willem-Alexander.



Prince Philippe is 53 years old. He and his wife, Princess Mathilde, have four children. As a young man he studied at both Oxford and Stanford universities in the UK and the USA. He also trained to be a fighter pilot in Belgium's air force.

Prince Philippe will officially become Belgium's new king on 21st July. This is a national holiday in the country. It marks the anniversary of the crowning of the country's first king in 1831. ■

PALIO DI SIENA

On 2nd July ten horses and riders took part in the famous *Palio di Siena* horse race. The race takes place in the Piazza del Campo. This is a large square in the centre of the city of Siena, in northern Italy. 'The Palio' is run twice a year, once at the beginning of July and then again in the middle of August.

The horses and riders race three times around the square. The course is covered in a thick layer of dirt and sand to stop the horses from slipping. The horses are ridden bareback, so the riders do not use saddles. Sometimes a few of the riders

fall off. It is not unusual for horses to cross the finishing line without riders on their backs. The race takes around 90 seconds.

The horse race dates back nearly 400 years. Italian cities are divided into different areas, or wards. These are called *contrade* (the singular is *contrada*). In Siena there are 17 wards. Each ward is named after an animal or symbol. For example, some of the names are Snail, Dragon, Giraffe, Tower, and Forest.

At first all the *contrade* took part in the Palio. One horse and its rider represented each ward. However, a long time ago it was decided that having 17 horses in the race was too dangerous. The number was then reduced to ten.

As all 17 *contrade* cannot compete in the same race there is a procedure for selecting which wards take part. The seven wards that did not run in the previous race are automatically selected. A draw then takes place to select three wards from the remaining ten.

Thousands of people, many of them visitors to the city, crowd into the square on the day of the race. Before it starts there is a large **pageant**. This includes many people and horse riders. All are dressed in clothes that would have been worn when the race was first held.

There are few rules in the Palio. For example, the riders are allowed to carry horsewhips. These can be used to strike other nearby horses. The riders can also try to block other horses to make sure that a certain ward does not win. If a horse without a rider crosses the finishing line first it still wins the race. The loser is judged to be the horse that finishes second and not the last horse to cross the line.

After the race the winning ward is presented with a 'palio'. This is like a large banner made of silk. It is hand painted by a local artist. A new palio is made for each race. So far the ward that has won the most races is *Oca* (the Goose). The second most successful is *Chiocciola* (the Snail).



Palio di Siena

In more recent years there have been some protests about the horse race. The protesters say the Palio should be banned. They believe it is cruel to make the horses take part in the race. ■

HOTSHOT DEATHS IN USA

On 1st July many flags in the state of Arizona, in the USA, were flown at half-mast. This was done as a symbol of mourning for 19 firefighters. The men had all died the previous day while trying to control a large wildfire near the town of Yarnell.

In recent weeks there has been very hot weather in the south west part of the USA. In Phoenix, the largest city in Arizona, record-breaking temperatures of 48°C (119°F) were recorded at the end of June. Death Valley in California is the driest place in the USA. This is where the world's highest ever air temperature, 56.7°C (134°F), was recorded in 1913. Some forecasters predicted that temperatures in this part of

California would set a new record. This did not happen. Yet the temperature measured in Death Valley was only a few degrees lower than the 100-year-old record.

Because of the lack of rain and high temperatures, areas covered in bushes and grass (often called scrubland) and woods have become very dry. When this happens people often describe the land as being like a 'tinderbox'. Many years ago, before the invention of matches, tinderboxes were used to light fires.

Lightning is believed to have started the wildfire in which the firefighters died. It began near the town of Yarnell, which is about 130 kilometres (80 miles) from Phoenix. Because of the dry conditions the fire grew quickly. Strong winds helped to spread the flames. Winds can blow burning **embers** high into the air. These can then start other fires where they fall back to the ground. People living in Yarnell were ordered to leave, or evacuate, their homes.

Large wildfires are very difficult to put out. Often firefighters just try to control them. Once this happens the fires may be extinguished by rain or they eventually die out, as there is nothing left to burn.

Many states in the USA have specially trained firefighters called 'Hotshots'. They normally work in teams of 20. Hotshots can spend several weeks trying to control the same wildfire. Usually they try to create barriers called firebreaks. These stop the flames from spreading. For example, they will use chain saws to cut down a long line of trees. Then, hopefully, when the wildfire reaches this line the flames will not cross over it. Another way of making a firebreak is to dig a long trench.

Hotshots also carry emergency shelters. These are similar to small tents. They are made out of foil, or very thin light sheets of metal. A person inside one of these shelters can survive a wildfire. Yet this is only if the flames pass over them quickly.

The 19 firefighters who died were all members of a local 20 man Hotshot team. The only one to survive was not near the fire. It's thought there was a sudden change in the way the wind was blowing. Flames then quickly surrounded the area where the 19 firefighters were digging a trench.



Wildfire

It took hundreds of other firefighters several more days to get the wildfire under control. By this time it had destroyed around 250 homes and a 34 square kilometre (13 square mile) area of woods and scrubland. ■

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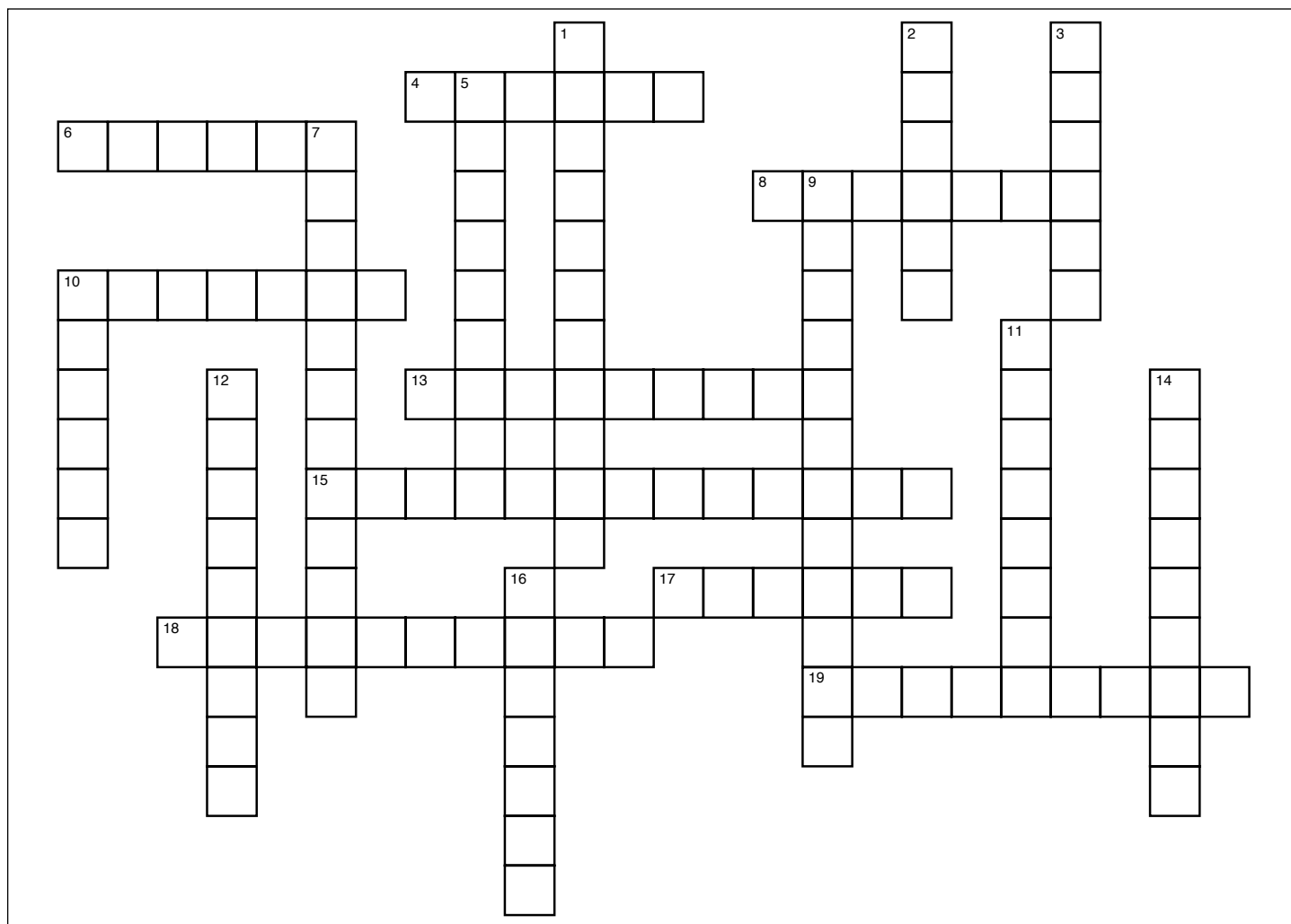
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ISSUE 201

GLOSSARY PUZZLE

INSTRUCTIONS: ① Complete the crossword. The answers are highlighted in orange in the news stories. There are 25 words highlighted and you need 20 of them to complete the crossword. ② Once you have solved the crossword go to the word search on the next page ➡



Across

- 4 Noun** The offer of money, especially for helping to find a person or something that has been lost or stolen
- 6 Noun** Safety and refuge given by a country to refugees from another country
- 8 Verb** Overturn accidentally
- 10 Noun** An entertainment or procession, usually with people wearing costumes to depict an historical scene or event
- 13 Noun (Plural)** Animals, plants or microorganisms that live in or on another from which they get their food
- 15 Verb** Examining something that has happened to find out what caused it
- 17 Noun** An arrangement of flowers and leaves in a circular shape, often used as a sign of respect and remembrance for people who have died
- 18 Noun (Plural)** Long tubes in the body that absorb food and carry waste out of your body
- 19 Noun** Waste matter discharged from the body

Down

- 1 Noun (Plural)** Hand-made objects made by a skilled person in a traditional way
- 2 Noun (Plural)** Seeds of certain plants, which grow in pods, that can be eaten such as peas, beans or lentils
- 3 Noun (Plural)** Hot glowing or smouldering fragments of wood or coal left from a fire
- 5 Verb** To change from a liquid into a gas
- 7 Adjective** Describes a person or animal that does not get enough to eat
- 9 Verb** Deliberately killed an important person, especially for political reasons
- 10 Verb** To die or waste away
- 11 Verb** Search for or remove something by digging in the ground
- 12 Verb** Stopped for a time
- 14 Adjective** Describes something related to, or happening at, night
- 16 Noun** A place of fiery heat or uncontrolled fire

ISSUE 201

GLOSSARY PUZZLE *CONTINUED*

G A M J Z W Y R W S N T J C T C R S
 T N Q W T Y E G B P N B F M K U U T
 C H I G T W Y M Q E A P Z H Z H P F
 L K O T A M J Y M R P G P F C A I A
 M Z V R A Z U E G I I M E Y R N C R
 B I D D X G R S E S L U P A T J A C
 O Q E C D C I X H H T A S E N B N I
 V D D X X L Z T J B S I S F W T Q D
 E W N E M B E R S S T T E S R O T N
 Z P E T I D U E A E I I B I E N Q A
 O B P A C V Z S S N V S Q J A N I H
 N R S R B A S Z E L A N R U T C O N
 R S U O O I P S Q S H B I S H R U Y
 E T S P N D H S S Q E M K L A G B L
 F F H A M I Q Z I H Y D U V O H G X
 N A T V N P G H I Z D R M W I F H N
 I E C E A E C L E K E B O L M S K K
 D E H S I R U O N L A M M U L Y S A

INSTRUCTIONS: ③ Find 19 of the 20 crossword answers in the word search. Words can go vertically, horizontally, diagonally and back to front. ④ After finding the 19 words write down the 20th (or missing) word under the puzzle.

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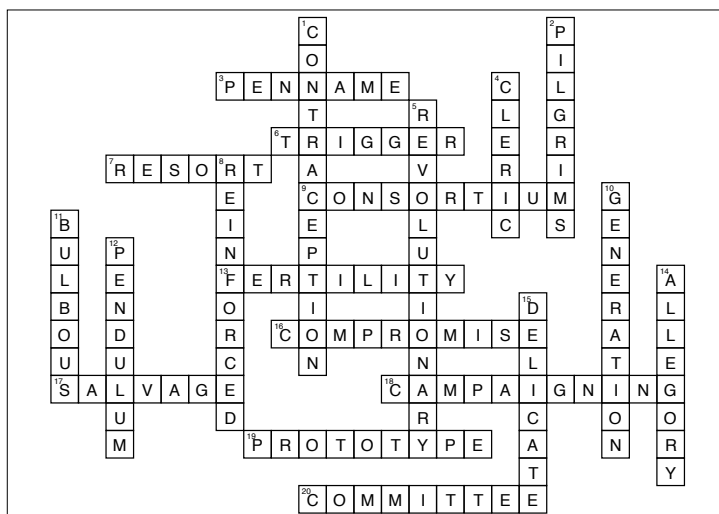


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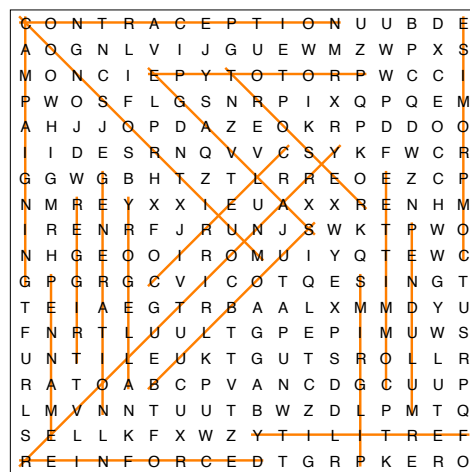
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MISSING WORD ANSWER =



ISSUE 200 ANSWERS



DELICATE